A KEY TO P.R.

Being an explanation of the Transferable Ballot, and of Proportional Representation as adopted by The Alberta Election Act, with full directions for the Counting of the Ballots

BY

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For the Use of Members of the Legislature, Candidates, Election Officials and Workers, Community Organizations, and Citizens generally

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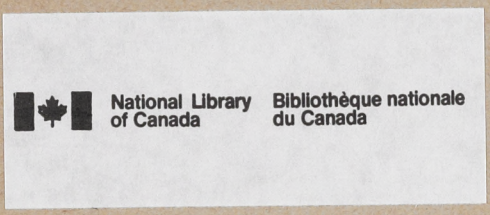

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CHAPTER I.

THE PREFERENTIAL BALLOT

The new Alberta Election Act does away with the use of the "X" mark entirely, provides for voting by the transferable or preferential ballot, that is by marking one's preferences 1, 2, 3, etc., and adopts proportional representation (which is practically the application of the preferential vote, where there are several members to be elected), in multi-member elections.

The Act makes provision for the counting of the ballots, marked as mentioned, under three different possible conditions, viz.:

(1) Where one member is to be elected and only two candidates are in the field.

(2) Where one member is to be elected and there are more than two candidates in the running; and

(3) Where more than one member are to be elected and there are more candidates than there are vacancies to be filled.

The use of the preferential or transferable ballot in the election of one member as in (1) and (2) is not proportional representation nor is it any mysterious or newly discovered electoral method. When any political party is nominating a candidate the procedure usually followed is this:

If there are four candidates put up and on the first ballot no candidate gets a clear majority of the total votes cast the low man is dropped and the delegates vote on the remaining three. If none of the three receives a clear majority the low man is dropped and the delegates vote on the remaining two, when the one securing the majority of the votes cast is declared to be the candidate. The delegates who lost their first choices are not compelled to take any further part in the proceedings, but they are entitled to go on and vote on every division taken and their votes in the final contest are their first and only choices between the two candidates still available and their ballots have the same value as the others in deciding the result.

This is exactly what is done in an election, when the voter uses the preferential ballot in the election of one member. His choice is indicated by the way he marks his ballot. He marks 1 for his first choice. If only two are running, he need go no farther because he has but one choice. But if more than two are running, then by marking 2 for some other candidate he indicates that if his first choice is eliminated because he is low man, then the voter wants his vote counted for his second choice, and so on for his other choices.

There are two important things to be remembered about the preferential ballot. The first is that the second or subsequent choices do not in any way affect the first choice. There are a great many who believe that by voting second choice for some other candidate they are voting against the one to whom they have given first choice. That is an entirely erroneous idea. A second or subsequent choice on a ballot merely shows the preference of the voter if the candidate to whom he has given his first choice is eliminated. As long as the candidate for whom the elector has voted "1" remains in the running, the second choice on that ballot is not touched. It is only after a candidate is eliminated by being low man that the second and subsequent choices on the first choice ballots cast for him are used. The second important thing to be remembered by the voter is that after the candidate for whom he has voted first choice is elim-

inated, his second choice then becomes of the same value as a first choice. In other words the position becomes the same as if the favorite candidate of the voter was eliminated and he had to vote again on those remaining.

When a voter marks his first choice only, that is plumps, with several candidates in the field, he indicates to the returning officer that if his first choice does not win he does not care who among the remaining candidates is elected. In effect the voter says "If the candidate for whom I mark 1 were not running I would not go to the poll at all." He places himself in a similar position to a delegate at a convention who if his favorite is dropped as being low man, declines to vote on the remaining candidates.

In all cases at the close of the polls the deputy returning officer counts the first choices only and sends his statement of same to the returning officer as has been the usual procedure. The returning officer, under the old system made his statement for the whole electoral division from the statements sent in by the deputy returning officers without looking at the ballots. Under the New Act the returning officer opens all the envelopes containing ballots and checks the returns made to him from each poll, in the presence of the candidates or their representatives and decides all objections, noting same so that an application for an appeal, recount or final addition may be made if any candidate so desires.

Having gone over all the ballots and having decided all objections the returning officer proceeds to make the count, and ascertain the winner. Under condition (1) where one is to be elected and only two go to the polls this is quite easy, the same method being followed as under the old system. Under condition (2) where one is to be elected and more than two go to the polls, it is just as simple if one of the candidates has a clear majority of the first choices.

But suppose there are four candidates and no one has a majority of all the first choice votes cast, then the procedure is as set out in the following example:

Example No. 1.

Four candidates, A, B, C, and D. One member to be elected—

First choices are put into four piles and counted as follows:

A	4,253
B	6,396
C	6,031
D	2,325
Total	19,005

No one has a majority of all the votes cast so no candidate is elected on the First count. D being low man is excluded, that is declared defeated, and each ballot in his pile is placed in the pile of the remaining candidate whose name is marked with the figure 2 as follows:

To A 315, to B 825, to C 643, plumpers with no second choices, 542. Total 2,325.

The result of these transfers called the Second count is—

A	4,253	+ 315	=	4,568
B	6,396	+ 825	=	7,221
C	6,031	+ 643	=	6,674
Total				18,463

As 542 ballots are no longer taken into account the total number of votes in the second count is 18,463, so the number required to win is 9,232. No candidate having obtained this number, A being low man is excluded and the 4,568 ballots which were counted in his pile are examined and divided between B and C as indicated by the voter's next available choice. D having been already excluded any choices for him have to be passed over and the next choice as between B and C followed, when it is found that there are for B 1,925, and for C 818.

On 1,825 of A's ballots no further preferences are shown.

The result of this transfer called the Third count is—

B	7,221	+ 1,925	=	9,146
C	6,674	+ 818	=	7,492

and B is therefore declared elected.

Where there are five or more candidates, none of whom is elected on first count the procedure is the same and continues by the successive exclusion of candidates and transference of preferences until one may be declared elected. If one point is steadily kept in view by the returning officer, he should have no difficulty in correctly accounting for all or any contingent votes shown, viz.: When a certain candidate has been declared defeated, and his ballot papers are to be transferred, they shall each be transferred to a still undefeated candidate who has opposite his name the preference number nearest following in numerical sequence, that opposite the name of the candidate whose ballot papers are being transferred.

The principle therefore, to be followed in transferring votes is, that in determining what candidate is "next in order of the voter's preference," no candidate who has already been declared defeated shall be considered, and the order of the voter's preference shall be determined as if the names of such candidate or candidates, did not appear on the ballot paper.

Expressions such as "next in order of the voter's preference" or "next preference" must therefore be interpreted to mean, not necessarily the numeral immediately following in numerical sequence, but the nearest following numeral opposite the name of an *undefeated* candidate.

If on any count there is a tie for an absolute majority the returning officer must be guided by the number and relative value of the preferences, the candidates having the lowest number of first preferences on the second count, of first and second preferences on the third count and so on, on successive counts, to be excluded according to the regulations provided. In all cases the returning officer shall have the casting vote, when on any count two or more candidates, having the same number of the same relative preferences in all respects are tied.

CHAPTER II.

PROPORTIONAL REPRESENTATION

In making the count under condition (3) as provided by the Act, that is where more members than one are to be elected and there are more candidates than vacancies to be filled, the returning officer has to deal with a new factor—the surplus majority—as the following example will show:

Example No. 2.

Three members to be elected. Five candidates running—

Two Conservatives,	A and B
Two Liberals	C and D
One Laborite	E

First choices are put into five piles as follows:

A	900
B	600
C	600
D	200
E	500
Total . . .	2,800

Where one member is to be chosen a candidate is sure of election if he gets at least one vote more than one-half of the total first choice votes cast. Where two members are to be chosen each is sure of election if he gets at least one vote more than one-third of the total first choice votes cast. Where three members are to be chosen each is sure of election if he gets at least one vote more than one-fourth of the total first choice votes cast and so on. As the total vote in the example is 2,800, a candidate in order to win must have at least one more vote than one-fourth of this number or 701 votes. A with 900 votes is the only winner on the first count. B the other Conservative candidate has only 600 votes and is short of election because too many Conservatives flocked to the support of A. Now A can win with 701 votes, so that he has a surplus of 199 votes which he does not need and which the returning officer will transfer to next choice.

He arranges the whole 900 of A's ballots into sub-piles according to their second choices. Suppose it is found that these second choices are as follows:

B	800
C	50
D	25
E	25
Total	900

In other words—

B gets 800 second choices out of A's 900 votes or 8/9 of them.
C gets 50 second choices out of A's 900 votes or 1/18 of them.
D gets 25 second choices out of A's 900 votes or 1/36 of them.
E gets 25 second choices out of A's 900 votes or 1/36 of them.

A can spare 199 ballots, therefore—

B is entitled to 8/9 of 199 =	176	8/9
C is entitled to 1/18 of 199 =	11	1/18
D is entitled to 1/36 of 199 =	5	19/36
E is entitled to 1/36 of 199 =	5	19/36
Total	197	

To get rid of the fractional votes an extra vote is given B who has the largest fraction. D and E have equal fractions, so the extra vote is given to E who has more first choices than D. The second count then stands—

A	900	— 199	=	701 (elected)
B	600	+ 177	=	777
C	600	+ 11	=	611
D	200	+ 5	=	205
E	500	+ 6	=	506
Total				2,800

The returning officer takes 177 actual ballots from B's sub-pile of 800 of A's ballots, one at a time, from several places in the pile, without examination, puts a rubber band around them and places them with B's first choice pile; he does the same with eleven out of C's sub-pile, five out of D's sub-pile, and 6 out of E's sub-pile, placing same in the pile with each candidate's first choices, and puts the remaining 701 aside, as they have elected A and cannot be used further in the election.

B now has 777 votes, and as 701 will elect him he has a surplus of 76 votes to be transferred to the remaining candidates.

The whole 177 ballots that B got from A are examined for third choices. Suppose it is found that these third choices are as follows:

C	50
D	75
E	40
Put to one side for B—No third choice	12
	177

In other words—

C gets 50 out of, not 177, but out of 165 of B's votes, or 10/33.
D gets 75 out of, not 177, but out of 165 of B's votes or 5/11.
E gets 40 out of, not 177, but out of 165 of B's votes, or 8/33.
B can spare 76 ballots, therefore—

C is entitled to 10/33 of 76 =	23	1/33
D is entitled to 5/11 of 76 =	34	6/11
E is entitled to 8/33 of 76 =	18	14/33
Total	75	

To get rid of the fractional votes an extra vote is given to D.

The third count then stands—

B	777	— 76	=	701 (elected)
C	611	+ 23	=	634
D	205	+ 35	=	240
E	506	+ 18	=	524
Total				2,099

The returning officer takes 23 actual ballots from C's sub-pile of (177–12) 165 of B's ballots, one at a time from several places in the pile, without examination, puts a rubber band around them and places them with C's first choices; he does the same with 35 out of D's sub-pile of B's ballots and 18 out of E's sub-pile of B's ballots and places same respectively in the pile with D's and E's first choices, and puts the remaining 101 (including the 12 set aside) with B's first choices 600, total 701 aside as they have elected B and cannot be used further in the election.

All surpluses are now disposed of and there are three candidates remaining, none of whom has votes enough to be declared elected, the count standing as follows:

C	634
D	240
E	524

The returning officer declares D, the low man defeated, and transfers D's ballots to C or E as shown by the choice between the two on each. Suppose it is found that these choices are as follows:

C	125
E	115

The fourth count then stands—

C 634 + 125 = 759
E 524 + 115 = 639 and
C is declared elected.

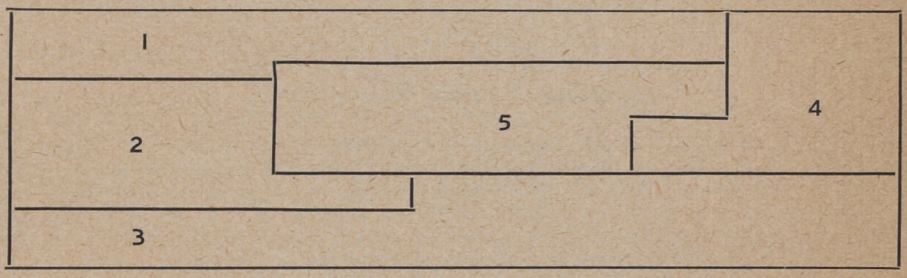
CHAPTER III.

The Old and the New Electoral Methods Illustrated and Compared.

Take for illustrative purposes an area that contains 18,000 voters and that is entitled to five members: assume that all the voters go to the polls, that there are no spoiled ballots, and that 7,000 vote Liberal, 7,500, Conservative and 3,500 Labour. The proper representation according to their voting strength would be, Liberal 2, Conservative 2, and Labour 1.

THE EVILS OF THE SINGLE MEMBER CONSTITUENCY WITH RELATIVE MAJORITY.

Assume that an election is coming on and that a Liberal Government in power divides the area into five single-member Electoral Divisions, hiving the Conservatives in a big Electoral Division in the centre, with a large majority, and carving out four irregular surrounding Electoral Divisions with small Lberal majorities, and splitting the Labor vote so that it has no chance to win any seat at all. The following diagram shows how this might be done:



The number of voters placed in each is:

Electoral Division	Liberal	Conservative	Labour	Total
1	1,500	1,400	1,000	3,900
2	800	700	500	2,000
3	900	800	300	2,000
4	1,000	600	200	1,800
5	2,800	4,000	1,500	8,300
	7,000	7,500	3,500	18,000

If each party runs one candidate and all the voters vote party, and the one securing the highest number of votes is elected whether he has a majority of all the votes cast or not, as the present method calls for, the result would be: Liberals with 7,000 votes elect 4 members; Conservatives with 7,500 votes elect 1 member; Labor with 3,500 votes elect 0 members; or by Electoral Divisions:

1. Liberal elected with 1,500 votes for, and possibly 2,400 against him.
2. Liberal elected with 800 votes for, and possibly 1,200 against him.
3. Liberal elected with 900 votes for, and possibly 1,100 against him.
4. Liberal elected with 1,000 votes for, and possibly 800 against him.
5. Conservative elected with 4,000 votes for, and possibly 4,300 against him.

Note that the winner in Number 4 Electoral Division is the only one securing a majority of all the votes cast. These results are brought about by the present system of single-member Electoral Division, X marked ballot, and relative majority. By relative majority is meant that the one getting more votes than any other candidate is elected whether he has a majority of all the votes cast or not. These results, unfair as they are, show the present system at its best, i.e., when each party runs but one candidate. When there are several candidates the unfairness is very much more in evidence.

For instance, in an Electoral Division of 3,000 voters, with one member to be elected and ten running, eight might get 300 votes each, one 299 and one 301. The candidate getting 301 votes would be elected with possibly 2,699 against him, thus producing what might be a dangerous state of affairs.

Now let us return to the five single-member Electoral Divisions. Suppose that at the next election held 51 Liberals in each of the Electoral Divisions, 1, 2 and 3 have become dissatisfied and have switched to the Conservatives, the result of the election would be, Liberals 1, Conservatives 4, Labor 0. The Liberals who with 7,000 votes held four seats, now with 6,847 votes would hold only one seat. The Government would be defeated, the papers would announce a great turnover, and a deep revulsion of feeling against the party in power, when as a matter of fact only 153 voters out of 18,000 had changed their minds, or less than 1% of the total votes. Yet uninformed supporters of the old system defend it on the grounds that it insures stable government, when as a matter of fact it has just the opposite effect.

Now let us strike out the boundaries of the single-member Electoral Divisions and treat the whole area as one large Electoral Division electing five members and let us give each voter five X votes. It is quite clear that if the Conservatives stay together and run five candidates only, they can elect the whole slate with their 7,500 votes and the result would be:

Liberals, 0; Conservatives, 5; Labor, 0.

No one would call this a fair representation.

CHAPTER IV.

Useless Surplus Majorities.

Suppose a change is made and the voter is given one X vote only. Imagine that the Liberals run five candidates, A, B, C, D, E, The Conservatives four, F, G, H, I, and Labor three, J, K, L, and that the Liberals have a strong outstanding candidate in A, the Conservatives a popular one in F, and that the Labor candidates command about an equal support from their party, with the result that the returns from the polls are as follows:

Liberals	Conservatives	Labour
A 6,000	F 5,000	J 1,200
B 500	G 900	K 1,200
C 300	H 600	L 1,100
D 150	I 1,000	
E 50		
7,000	7,500	3,500

This means the election under the present system of A, F, J, K, and L, and the standing of the parties would be Liberal, 1; Conservative, 1; Labour, 3.

What brought about this very one-sided representation? The Liberals concentrated their votes on A, the Conservatives on F, and by their waste of votes in useless majorities prevented any other of their candidates from being elected. How could such waste have been avoided? By making A's and F's surplus votes available. How could this have been done? It could have been done—

(1) By finding out the least number of votes A and F, along with three others should have in order that no other candidate, even if he got all the rest of the votes could beat any of them, and (2) by giving A and F this least number to elect them and then giving the surplus votes of A and F to the other candidates according to each voter's wish. How is that least number to be determined and each voter's further wishes ascertained?

CHAPTER V.

How the Number of Votes Required to Win under P.R. is Arrived At.

Let us suppose that only two candidates are running with one member to be elected. Take two baskets, one for each candidate's votes, thus:

Candidate's ballots.	Candidate's ballots.

Divide the 18,000 ballots equally between the two candidates.

Candidate's ballots.	Candidate's ballots.
9,000	9,000

What is the least number of ballots that could be taken from the second basket and put into the first basket to make the one candidate a winner and the second a loser? The answer is easy: One. Make the change and we have:

Member's ballots.	Defeated candidate's ballots.
9,000 + 1	9,000 — 1

Now suppose there are three candidates and only one to be elected. It is apparent that only two baskets are necessary because the winner must have at least one more vote than the other two put together and the number in the baskets remains the same though the second basket contains the ballots of two defeated candidates. The number of baskets and of ballots in each are the same for any number of candidates, so long as only *one* member is to be elected.

Next let us apply the method when there are three or more candidates and *two* members to be elected. Any one can see that two members could not each get 9,000 + 1 votes when there are only 18,000 votes all told. A basket has to be added for the second member's ballots and we have:

Member's ballots.	Defeated candidate's ballots.

Member's ballots.

Divide the ballots equally among the three baskets and the result is:

Member's ballots.	Defeated candidate's ballots.
6,000	6,000

Member's ballots.
6,000

What is the least number of ballots that must be put in each member's basket from the defeated candidate's basket to give two equal winners? One. Make the change and the baskets will contain—

Member's ballots.	Defeated candidate's ballots.
6,000 + 1	6,000 — 2

Member's ballots.
6,000 + 1

In a poll of 18,000, three candidates can obtain as many as 6,000 votes each, but only two can obtain 6,001 votes each. This means that if two candidates get 6,001 votes each, the best any other or all other candidates can get is 5,998, showing the two to be absolute winners.

Next take up the case in question, if there are 18,000 votes and five members to be elected with twelve candidates running, what is the least number of votes each of the five should have, to become equal winners? Set out a basket for each member and one for the defeated candidates as follows:

Member's ballots.	Defeated candidate's ballots.
3,000 + 1	3,000 — 5

Member's ballots.
3,000 + 1

Member's ballots.
3,000 + 1

Member's ballots.
3,000 + 1

Member's ballots.
3,000 + 1

Divide the 18,000 ballots equally among the six baskets, taking one ballot out of the defeated candidate's basket and putting it into the member's basket in each case and there will be five members each with 3,001 votes and the defeated candidates combined cannot exceed 2,995 votes, therefore, each of the five has an absolute majority.

CHAPTER VI.

Why Surpluses Should Be Transferable.

A has 6,000 choices but 3,001 are all that he requires in order to have an absolute majority out of 18,000 of a total where there are five members. He therefore does not need 2,999 of these votes and they are wasted unless they can be used to help other candidates to secure the 3,001 votes required for election. The returning officer is helpless and practically has to throw these surplus ballots away, because there is nothing on them to tell him what other candidates the voters prefer next after A.

This state of affairs is caused by the X ballot not giving the voter a chance to tell the returning officer what to do with his ballot in case it is not required to help elect A.

What is the use of urging the voters to exercise their intelligence when the ballot supplied does not give them a chance to do so? Opponents of P. R. say that many voters have not the intelligence or knowledge to express their preferences where there are a large number of candidates. Advocates of the system reply that it does not take any more intelligence or knowledge to mark 1 than it does to mark X, and the voter can stop at 1 if he has to. They ask why a voter who has greater intelligence and knowledge should be prohibited from exercising his full franchise rights just because some others are unable to go so far? Moreover, they claim that it is in the exercise of choice that the voter develops intelligence and knowledge, and if the way is opened and the necessity realized he will soon learn to use his right to vote to its fullest extent.

If the voter had been allowed to mark his preferences for the candidates by putting the figure 1 opposite his first choice, 2 opposite his second choice and so on for all the candidates or so far as his knowledge and intelligence would enable him to go the returning officer would know what to do with the 2,999 first choices that A did not need. He would give them to the next choices of candidates that needed them in the order indicated by the preferences of the voter.

Note that these 2,999 first choices have not been used. The voters have not yet voted, they have expressed a first choice, but their ballots have not been needed to elect their first choice, therefore, they are still available to be used on their second or other choices and the voter has not really voted until his ballot is used for some candidate. The elector has only one vote, but the returning officer applies that vote according to the voter's directions, so that it will actually take part in the election.

Let us assume that all the voters have marked on their ballots the order of their preferences for all twelve candidates and that the ballots have been sorted as per first choices among the candidates. A rubber band is placed around these ballots and they are placed in the candidate's basket. A and F both have surplus first choices; A's being the greater number will be dealt with first.

CHAPTER VII.

How Surplus Votes Are Transferred

The returning officer looks at the whole 6,000 ballots having A for first choice and ascertains how many have second choices and who the second choice is on each ballot. Where the second choice is for F, he takes the third choice, because F is already elected and does not need any more votes, having a surplus of his own. He arranges these transferable ballots in sub-parcels according to next preferences with a rubber band around each sub-parcel. He finds that the next choices are given to the other candidates as follows:

B has 4,000 out of 6,000, or $\frac{4,000}{6,000}$ or 2/3 of all A's ballots.

C has 1,000 out of 6,000, or $\frac{1,000}{6,000}$ or 1/6 of all A's ballots.

D has 500 out of 6,000, or $\frac{500}{6,000}$ or 1/12 of all A's ballots.

E has 250 out of 6,000, or $\frac{250}{6,000}$ or 1/24 of all A's ballots.

F .....

G has 25 out of 6,000, or $\frac{25}{6,000}$ or 1/240 of all A's ballots.

H has 50 out of 6,000, or $\frac{50}{6,000}$ or 1/120 of all A's ballots.

I has 60 out of 6,000, or $\frac{60}{6,000}$ or 1/100 of all A's ballots.

J has 40 out of 6,000, or $\frac{40}{6,000}$ or 1/150 of all A's ballots.

K has 50 out of 6,000, or $\frac{50}{6,000}$ or 1/120 of all A's ballots.

L has 25 out of 6,000, or $\frac{25}{6,000}$ or 1/240 of all A's ballots.

6,000

As A requires 3,001 to elect him there are only 2,999 to spare. Divide 2,999 among the others in proportion to the number each got out of the 6,000 and the result will be:

B would get 2/3 of 2,999 = 1,999 $\frac{800}{2,400}$ ballots 1,999.

C would get 1/6 of 2,999 = 499 $\frac{2,000}{2,400}$ ballots + 1 = 500.

D would get 1/12 of 2,999 = 249 $\frac{2,200}{2,400}$ ballots + 1 = 250.

E would get 1/24 of 2,999 = 124 $\frac{2,300}{2,400}$ ballots + 1 = 125.

F .....

G would get 1/240 of 2,999 = 12 $\frac{1,190}{2,400}$ ballots = 12.

H would get 1/120 of 2,999 = 24 $\frac{2,380}{2,400}$ ballots + 1 = 25.

I would get 1/100 of 2,999 = 29 $\frac{2,376}{2,400}$ ballots + 1 = 30.

J would get 1/150 of 2,999 = 19 $\frac{2,384}{2,400}$ ballots + 1 = 20.

K would get 1/120 of 2,999 = 24 $\frac{2,380}{2,400}$ ballots + 1 = 25.

L would get 1/240 of 2,999 = 12 $\frac{1,190}{2,400}$ ballots + 1 = 13.

2,991 + 8 2,999.

There are 2,999 ballots in A's surplus and only 2,991 *whole* ballots given to the other candidates. In order to transfer the full number, give the candidate with the highest fraction the whole ballot until eight more are acquired. L is given the whole ballot over G with the same fraction because L has more first choices than G. The actual number of ballots each candidate got out of A's surplus is taken out of each respective sub-parcel, one at a time, without examination, from several places in the sub-parcel and placed in that candidate's basket, with a rubber band around each parcel to keep it distinct from the first choices. A's 3,001 first choices remaining are put away. Having been used to elect "A" and one man having but one vote, their voting power is exhausted. The result of the second count, as the transfer of A's surplus is called is obtained by adding the number transferred to each of the other candidates to the number of first choices each one received, as follows: B, 500 + 1,999 = 2,499; C, 300 + 500 = 800; D, 150 + 250 = 400, etc. Anybody who can add can do this, in fact anyone who can read and count can do it, for he handles the actual ballots and all he has to do is to change them from one candidate's basket to another's, and keep track of the number of changes made. Even if he were to lose track of the count he can easily go back and check it up.

F's surplus of 1,999 first choices is next dealt with in the same manner as A's was, i.e., by giving to each of the candidates other than "A" his proper share of such surplus. The ballots with a band around each parcel are placed in the different candidates' baskets and the remaining 3,001 are put away as having elected F.

The result of the third count as the transfer of F's surplus is called is obtained by adding the number transferred to the total of the second count as follows: B, 2,499 + 12 = 2,511; C, 800 + 13 = 813, D 400 + 45 = 445, etc., etc.

All surpluses are now disposed of and yet only two candidates elected. While the Liberal second choices went largely to the other Liberal candidates and the Conservative second choices went largely to the other Conservative candidates the vote is too scattered to elect any one of them.

The next and succeeding steps or counts are so simple that the average school boy would find no difficulty in working them out.

The candidate with the lowest number of ballots is declared defeated and all the ballots in his basket are given to the candidates still in the election in accordance with the next choices of the voters as shown on the ballots.

The result of the third count shows that E is low man with only 204 ballots. Give these 204 ballots to the next undefeated choice on each after E.

The result of this fourth count as the transfer of E's ballots is called is obtained by adding the number transferred to the different candidates to the number they already have as follows: B, 2,511 + 40 = 2,551; C, 813 + 50 = 863; D, 445 + 60 = 505, etc., etc. The process of dropping the lowest man and giving his ballots to next undefeated choice, putting bands around each parcel, is kept up until five are elected.

The full statement of an election by P.R. no doubt appears quite mysterious to the person who looks casually at the figures only. If he would start at the beginning and learn why each step is taken he would see that the statement is nothing more than the result of the application over and over again of a few principles sound, simple and easy to carry out, and which have been proved to be efficacious in removing certain real objections from our present electoral method.

CHAPTER VIII.

The Effect of Plumping.

There remains the question of the effect on the election of voting first choice only or of not marking preferences for all the candidates.

A ballot is good until it is used to help elect some candidate. If a voter's ballot helps to elect his first choice, he has voted and his ballot is dead. If it is not used to help elect his first choice it may be used to help elect his second choice. If so, he has voted, and his ballot is dead, and so on. If, however, his ballot is not used for any of the preferences he has marked, and he fails to mark all his preferences it cannot be used any farther than he has directed and he

loses his vote and the ballot is placed at the bottom of the count as non-transferable. A later choice can never interfere with a prior choice, because the ballot is counted the first chance it has to help elect one of the candidates and is then dead so that choices after the one it is used on do not affect the vote. A ballot with twelve candidates may not be used until the tenth or even later choice is reached and if that choice is not on the ballot, the voter loses his vote. So long as the voter's choices from 1 up are defeated or elected without his ballot being used it is available for next choices. If his choices end before the ballot is used, the voter must lose his vote, because the ballot cannot be further transferred owing to lack of direction from the voter.

Assume, for example that 1,000 Liberals plumped for "A," not that they did not want "B" elected, for he would have been their next choice if they had not desired to make sure of "A's" election and thought that by plumping for him they would further their purpose. But they do not give "A" any extra assistance by this for their first choices would have gone to "A" if he needed them, even if they had marked their preferences for all twelve candidates.

"A" had a surplus of 2,999 ballots which went to elect other candidates, chiefly Liberals, "B" getting 1,999 of them. Now the 1,000 plumpers that might have had second choice for "B," count for "A" only and the total number of second choices on "A's" 6,000 ballots is reduced to 5,000, and the number going to "B" is reduced from 4,000 to 3,000 so that while the number of "A's" surplus to be divided remains at 2,999, the *proportion* in which the second choices are to be divided is changed and "B" gets 3,000/5,000ths or 3/5 of 2,999 instead of 4,000/6,000ths or 2/3 of 2,999, "C" gets 1,000/5,000ths or 1/5 instead of 1,000/6,000ths or 1/6, and so on for all the candidates. "A" gets no advantage from the plumpers, "B" gets 200 less second choices ,which are distributed among the other candidates. The result is that 1,000 Liberal voters by plumping for "A" not only did not and could not under any circumstances do "A" any good, but they actually deprived "B," who would have been their second choice, of 200 votes. Therefore every voter who desires to make the most of his voting power in an election should mark as many preferences as his knowledge will permit up to the full number of candidates.

THE FULL STATEMENT OF THE DIFFERENT COUNTS.

A complete statement of the result of the different counts is attached hereto. It corresponds in some respects to a balance sheet taken off by a business firm at the end of the year. The fact that an employee cannot make a balance sheet, or cannot trace the part he performed in arriving at the result does not lead him to condemn the figures, nor to question the correctness of the expert accountant who workd them out or of the auditor who checked them. He did his part along with many others and is satisfied to let others do the work for which they are specially fitted. In a similar way the voter can do his part by marking his preferences and leave it to those qualified to apply these preferences and to work out the result.

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Number valid votes cast, 18,000.

Number of members to be elected, 5.

Number of votes necessary to elect a member, 3,001.

Candidates	First Count	Second Count		Third Count		Fourth Count		Fifth Count		Sixth Count		Seventh Count		Eighth Count		Ninth Count	
		Transfer of A	Result	Transfer of F	Result	Transfer of E	Result	Transfer of D	Result	Transfer of C	Result	Transfer of L	Result	Transfer of H	Result	Transfer of K	Result
A -	6000	—2999	3001	—	3001	—	3001	—	3001	—	3001	—	3001	—	3001	—	3001
B - -	500	+1999	2499	+12	2511	+40	2551	+200	2751	+250	3001	—	3001	—	3001	—	3001
C - -	300	+500	800	+13	813	+50	863	+150	1013	—1013	—	—	—	—	—	—	—
D - -	150	+250	400	+45	445	+60	505	—505	—	—	—	—	—	—	—	—	—
E - -	50	+125	175	+29	204	—204	—	—	—	—	—	—	—	—	—	—	—
F - -	5000	—	5000	—1999	3001	—	3001	—	3001	—	3001	—	3001	—	3001	—	3001
G - -	900	+12	912	+900	1812	+10	1822	+60	1882	+100	1982	—	1982	+800	2782	+334	3116
H - -	600	+25	625	+600	1225	+5	1230	+40	1270	+200	1470	—	1470	—1470	—	—	—
I - -	1000	+30	1030	+300	1330	+15	1345	+10	1355	+150	1505	—	1505	+475	1980	+900	2880
J - -	1200	+20	1220	+ 50	1270	+8	1278	+5	1283	+175	1458	+712	2170	+95	2265	+736	3001
K - -	1200	+25	1225	+25	1250	+12	1262	+25	1287	+83	1370	+500	1870	+100	1970	—1970	—
L - -	1100	+13	1113	+25	1138	+4	1142	+15	1157	+55	1212	—1212	—	—	—	—	—
Non-transferable	——	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS	18000		18000		18000		18000		18000		18000		18000		18000		18000